Destructing Causal Deconstruction

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"There is nothing so plain boring as the constant repetition of things that are simply false, and sometime not even faintly sensible; if we can reduce this a bit, it will be all to the good." J. L. Austin

Sometimes it is the proper business of philosophy to call us to our senses, to remind us of what is and is not sensible. Still, philosophy often seems at her best and highest when she outrageously challenges the self-satisfied dictums of our so-called common sense. After all, as the Copernican, Newtonian, and Einsteinian revolutions have shown us, even the most solid and unquestionable of our beliefs may not stand fast for us tomorrow.

So, when the winds of fashion carry rumors from the continent of Derrida's derring-do, of his deconstructing our most basic notions, we may well have reason for excitement, perhaps even for feeling anxious, threatened, or challenged. Has he really shown that some of our most basic concepts contain the seeds of their own destruction? And, what new vistas of intellectual adventure might be opened to us in the aftermath, when we are forced to reconstruct from the rubble-heap of our completely deconstructed world view?

For guidance in these deep and troubling matters, I have turned to Jonathon Culler (*On Deconstruction*; Cornell University Press, 1982, pp. 85-9), an enthusiastic and highly respected expositor of deconstruction. I shall consider only the first example he gives to illustrate the deconstruction approach, namely, the Nietzschean deconstruction of causality. Culler assures us that, while this example poses numerous problems, it can serve for the moment as a compact instance of the general procedures we encounter in the work of Jacques Derrida. In the interests of charity, I shall assume that Culler is mistaken, and that this "deconstruction of causality" does not in fact represent Derrida or the deconstruction approach at its best.

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Culler begins by acknowledging the central importance of causality: "Causality is a basic principle of our universe. We could not live or think as we do without taking for granted that one event causes another, that causes produce effects."

Already, however, Culler seems to be softening us up for the kill. In what sense do we just "take for granted" that one event causes another? Perhaps it is true that ordinarily I take for granted that turning the key will cause my engine to turn over. And, given that my horseless carriage is not entirely reliable, sometimes I take too much in taking this for granted. But, I want to say, it simply is not true that I only take for granted that turning ignition keys

causes engines to turn over. I know that this causal relation obtains, and I know it from vast experience, from knowledge of the principles of mechanics and electricity, from knowing how automobiles work. But, of course, this knowledge claim of mine presumably is what deconstruction calls into question.

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Second, Culler cautions that the deconstruction of causality does not show that the principle of causality is illegitimate or that it should be scrapped. To the contrary, deconstruction asserts "the indispensability of causation." Curiously enough, however, deconstruction preserves the notion of cause only because it must use the notion of cause to undermine the notion of cause:

"Deconstruction itself relies on the notion of cause ... To deconstruct causality one must operate with the notion of cause and apply it to causation itself." That is to say, "deconstruction works within the terms of the system ... in order to breach it." Since deconstruction systematically employs the concepts or premises it is undermining, it is in a position "not of skeptical detachment, but of unwarrantable involvement, asserting the indispensability of causation while denying it any rigorous justification."

Culler remarks that it is difficult for some to accept this ambivalent attitude. Indeed. When a philosopher shows that applying a concept to itself leads to absurdities, usually he is considered to be constructing a *reductio*, showing that the concept is illegitimate and should be scrapped. This is not an unusual procedure. What is unusual, however, is to find a philosopher pointing out absurdities and then boldly embracing them.

III.

Now, in what sense does deconstruction question, undermine, breach, or disrupt the system that employs causality? The astonishing answer is that it boldly challenges and calls for a reversal of the traditional scheme that makes the cause an origin, logically and temporally prior to the effect: "Deconstruction reverses the hierarchical opposition of the causal scheme" by producing an "exchange of properties," showing that the argument which elevates cause can be used to favor effect."

That is to say, deconstruction shows that "If the effect is what causes the cause to become a cause, then the effect, not the cause, should be treated as the origin. ... If either cause or effect can occupy the position of origin, then origin is no longer originary; it loses its metaphysical privilege."

In short, Culler is advancing an idea as revolutionary as any that Einstein ever proposed about space and time. He really is suggesting that we may well have gotten things exactly backwards in the causal scheme: The whistling of the teapot might be what precedes and causes the boiling of the water!

IV

The arguments for this reversal of the causal order are as astonishing as the suggestion itself. We are told that "the concept of causal structure is not something given as such but rather (is) the product of a ... chronological reversal." The basic fact of "inner experience" is that the effect is experienced before we experienced the cause. The cause is imagined only after the effect has occurred. So, in the phenomenalism of the "inner world," we (illegitimately) invert the chronology of cause and effect.

For example, when we feel a pain, we may be caused to look for a cause. Spying a pin, we might suppose a causal sequence between the pin and the pain. But, when we infer that the pin cause the pain, we forget that the pain (in plain fact) came before the pin in our experience, and we reverse the perceptual and phenomenal order of our actual experience. "The experience of pain ... causes us to discover the pin and thus causes the production of a cause." So, Culler concludes, "pain can be the cause in that it may come first in the sequence of experience."

It is tempting to object that we often experience causes before their effects (we see the pin enter, then feel the pain). But, Culler replies that "only the experience or expectation of the effect enables one to identify the phenomenon in question as a (possible) cause." In any event, says he, the mere "possibility of an inverted temporal relation suffices to scramble the causal scheme by putting into doubt the inferring of causal relations from temporal relations." So, to repeat, "If the effect is what causes the cause to become a cause, then the effect, not the cause, should be treated as the origin."

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Provoked by arguments such as these, it is difficult not to dismiss them with Queen Victoria's retort that, frankly, we are not amused. But, when honest philosophizing goes astray, as all too often it does, one should try to be helpful. So, what can one say?

The core of Culler's argument is that our traditional causal scheme has been "produced by a metonymy or metalepsis (substitution of cause for effect)." But, it seems much more plausible to suggest that his bizarre reversal of the causal order is produced by ellipsis (omission of words required to make the sense of a sentence clear).

Culler suggests that "the effect is what causes the cause to become a cause." As it stands, this is plainly false. The whistling of the teapot might indeed cause me to notice that the teapot is boiling. But, it does not follow that the whistling causes the boiling. Nor does the whistling cause the boiling to become the cause of the boiling. No, the whistling simply causes the boiling to become *noticed* as the cause of the whistling. So, perhaps Culler simply lost track of the sense of his sentence when he went from "The effect causes the cause to become (noticed as) a cause" to "The effect causes the cause to become ... a cause." (ellipsis, omission)

There is, of course, a strained sense in which effects could be said to cause their causes to become causes. That is to say, causes would not be causes if they had no effects, just as mothers would not be mothers if they had no children. So, there is a sense in which we might say that children are the causes of their mothers' being mothers. But, it would be a silly misunderstanding to infer from this that every child must be his or her own father, outperforming even Oedipus the King. Children are not the causes of their mothers' being mothers in this sense. They are not liable to paternity suits.

Still, one suspects that something deeper than slippery word-play must be at work in this claimed deconstruction of causality. In fact, a close reading of the argument (given in section IV above) seems to reveal a phenomenalism (or empiricism?) so radical that it is assumed that we cannot know anything but our stream of experience – the "inner life" – as though everything, as it were, is but a dream. But, even so, would this deconstruction work?

Could an effect cause a cause to become an effect, even if only in a dream? Well, perhaps dreaming that I hear a shot could cause me to dream that I turn and see a person shooting bottles. Since it is only a dream, perhaps dreaming the "effect" could cause me to dream the "cause." But, this still is not a case where an effect causes its cause. Here, we simply have a dream event causing us to dream that it had a certain cause. And, besides, life is not a dream.

Well, then, would deconstruction work here if nothing existed but the "inner life" – a Humean stream of "experience," whatever this is supposed to mean? I suspect that a large part of Hume's skepticism about causation did stem from his view that we can know nothing but ideas (mental images or representations), combined with the fact that no images of any kind seem to have normal causal powers. For example, the successive images we see on the screen at a cinema do not cause one another. The image we see of a gun being fired does not cause the subsequent sound we hear of a gun being fired, nor does it cause the following images of smoke and gore. But, it is one thing to deny any causality between ideas in the Humean theatre of the mind (beyond constant, regular association). It is quite another thing to suggest, as Culler does, that the observed smoke and gore of fired guns causes the firing of those guns. Not even Hume, I think, would have found this sensible.

I think that the deconstruction of causality gains its greatest appeal in its claim to be absolutely empirical, strictly faithful to the facts of experience. Is suggests that (in point of fact) we very often experience the presumed effects first, and only later experience the events that by metalepsis we place in the position of cause. The half-truth contained in this suggestion is that we do indeed often notice effects before discovering their causes. But the remainder of this suggestion is plainly false. We never *ever* experience an effect and later experience the event that caused it. For example, we never first hear the sound of a vase breaking into shards upon the floor, and then turn to see it falling to its destruction ... unless we are hallucinating. So, contra Culler, it simply is not true that we invert the temporal order of our experiences of causes and effects. Whenever we do actually experience or witness the occurrence of a causal event, we always experience it prior to (or simultaneously with) experiencing its effect.

There are, of course, cases where we first experience the effect, and subsequently experience the item that caused it. For example, when sitting on a couch, I might first experience a pain, and only later see see the pin that caused the pain. But, this is not to experience the event that caused the pain – it is only to experience the item that caused the pain. (Standing on the railroad tracks, I might first hear the whistle, and then turn to see the train, the cause of the sound I heard. But, again, this is only to see the thing that caused the whistle, not to subsequently experience the particular event or action that caused the whistle.)

So, again, the deconstruction of causality seems only to rest on careless inattention to language, not on extraordinary attention to the order of our experiences. To call a pin the cause of my pain is not to say that it is the causal event that resulted in my pain. The pin is the cause of my pain only in the sense that it is the item that pierced my flesh, causing my pain.

One cannot help wondering what Culler would say if we put aside the pin that had caused him pain, and showed it to him years later. Would he then be even more convinced that the pin he sees could not possibly be the thing that caused his prior pain, since he is experiencing it now, years after the pain that it supposedly caused? His reasoning commits him to this absurd contention. But, again, the reply is this: While the particular *event* (the piercing of his flesh that caused his pain years ago) cannot now be observed, the *item* that pierced his flesh and caused his pain still can be observed and experienced again and again.

VII.

As remarked earlier, Culler does admit that at least "sometimes we observe the cause first and then the event: we see a baseball fly toward the window and then witness the breaking of the window," But, even in this case, he thinks that one "might reply that only the

experience or expectation of the effect enables one to identify the phenomenon in question as a (possible) cause." Now, why on earth does Culler imagine that this constitutes a reply?

The first time that I see a baseball flying toward a window, I indeed might not identify it as a potential cause of the breaking of a window. Nevertheless, the absence of any expectation on my part that it will break the window does not prevent it from breaking the window. Nor does my lack of prior experience here (the fact that I have never before seen a baseball break a window) prevent me from seeing it break the window. And, as we learn as children, covering our faces and trying not to see the breaking of the window does not slow down the baseball in the least.

Prior experience or prior expectation might be necessary for my seeing an event as a potential cause. But, surely, my experience or expectation does not itself cause or even contribute to the causation of the expected event. For example, I might eat poisonous mushrooms without awareness or expectation of the unpleasant effect that they later will have on me. And, even if I do eat them with this effect plainly in mind, deliberately setting out to poison myself, my actual experience of the actual effect will occur only after the experience of eating them. After all, even if I have a vivid imagination and have an extremely realistic "experience of being poisoned" prior to eating the mushrooms, I still am only imagining the future effect – I am not yet experiencing it. Besides, unless I am a hypochondriac, the chemical properties of the fungi, not my prior imagery, will produce the anticipated effects. So, disappointingly enough, there is absolutely nothing to this part of his argument either.

VIII

One last note on Culler's argument: While he insists on reversing the causal order of things in almost every area, he does manage to get the order right when it suits him. For example, he does have it right when he suggests that the experience of pain sometimes causes us to look for and discover a pin. But, why be so selectively perverse? Why not argue for a reversal of the causal order even here? Why not reverse it everywhere? Why not say that the pain did not cause me to look for a pin? Why not say instead that looking about for a pin was the cause of the pain, since the pin was the cause of the pain, and the experience of looking for a pin came before finding the pin that caused the pain. Why not say that only my prior experience of pains causing me to look about enabled me to identify my looking about as being caused by the pain, so that really the looking about was the cause of the pain, not the pain the cause of looking about? Having swallowed the camels, why strain at the remaining few gnats? Even madness is enhanced by consistency, unless we want to track down and deconstruct consistency too while we are about it.

If we accept Culler's claim that we have gotten the causal order of all or many things backwards, we are saddled with an insurmountable problem: How then should we even begin to understand or explain how or why things happen as they do? As I watch the hands on my wind-up clock slowly turning, how am I to explain their ability to wind up the mainspring, lacking the momentum to do that? How could feeling a pain be causally responsible for my being stuck by the pin? What would the underlying causal mechanism be, by which pains bring about the wounds that ordinarily think are their causes? How could the whistle of the teapot be the cause of the water's boiling? What on earth could Culler (or the editors at Cornell University Press who approved his manuscript) have been thinking? Was he thinking of the fact that microwaves cause heat by producing sound? But, then, what did he think produced the whistle? One must think that he really wasn't thinking here at all.

Now, if all causation (every tiny link in the causal chain) were reversed, then perhaps we could maintain a consistent causal story. But, ordinary causation will be preserved only if *all* events are reversed. If only a select few arbitrarily selected chunks of history trade places with each other in the causal chain, as Culler seems to want it, then causal explanation will entirely break down. On the other hand, if all causal processes in the causal chain are reversed, so that the history of our world unfolds like a film run in reverse, pains still will not cause pins to pierce our flesh. Rather, it seems, they would cause pins to be expelled from our flesh. But even this is not clear. If our universe were running in reverse, it isn't clear that large objects such as pins and hammers could have the important and decisive role in causal explanations that they now have. Most causal explanations would have to refer to the component micro-parts of the whole system.

In order to try to think about this more clearly, let us greatly simplify our picture of the kind of world in which we live. Let us imagine that we live in a simplified Newtonian world. Basically, the simplified picture is this: Everything that exists is, so to speak, composed of tiny little billiard balls (atoms) whose behavior is completely covered by the laws of motion and gravitation. Such a system is completely deterministic – the original positions and directional velocities of the balls determine every future state in the universe. Each successive state of this universe is just another link in the great causal chain, leading inexorably to the next link in the chain (next state in the universe). Now, as an expository fiction, let us also imagine that there is a first cause in this universe, and let us call Him "God."

Suppose that, in the beginning, God has all the billiard balls (atoms) of our universe all bunched up together on the great pool table of infinite space, and that He calls the Heavenly Host around Him to observe. "Watch this," He commands, rubbing a goodly extra amount of chalk on His cue. He carefully (*very* carefully) arranges the balls just right, sights down his cue, and (taking very careful aim), He BREAKS (this is the Big Bang). Now, since this is a completely

deterministic system, and since God has infinite Intelligence, He can call every pocket at every future instant for every ball (atom) in the game, all the way to the eventual "heat death" of the universe. That is to say, He can plot and predict the course and career of every atom in your body, every atom in the fiery furnace of every star, and of course every sound and motion you will ever produce.

There are several things worth noting about this picture of an Infinite Intelligence playing with a completely deterministic, Newtonian universe. First, if a God working with such a system wanted to create a universe with exactly the same history as ours, (exactly, down to the last sigh, whisper, and rustle of every leaf in the breeze), then He could indeed produce it by paying sufficient attention to the original arrangement and impulse given to the component atoms at the beginning. Needless to say, it would be a wild understatement to say that the shots He was calling were long shots. They would be very long shots, indeed, but no problem in principle for an Infinite Intelligence working with a completely deterministic system. And, the Newtonian universe is such a system.

The second thing of interest is that God would not need to plan His shots at all to get a universe as glorious, beautiful, and apparently planned as ours. He could just mix and scramble the original atoms as carelessly as you please, and *break with His eyes closed*. That is to say, the Newtonian universe is much like a kaliedoscope that yields beautiful patterns no matter how we shake it. With a different original configuration of the component parts, of course, there would be different galaxies and different solar systems in different places, evolving different forms of intelligent, creative life. (Darwin's theory does not simply explain how intelligent and creative life forms can evolve without their being designed by an intelligent creator – it shows that the evolution of such marvelous life forms is virtually *inevitable* in any universe made of roughly the same number and type of deterministic components as ours, so long as the original impetus is sufficiently large. *No matter what the original random jumble*, any deterministic universe marches inexorably toward complex, organized life, because only the random structures that can survive continue.)

The third thing to notice about the Newtonian universe is that it is the kind of mechanism that theoretically could run in reverse, so to speak. Now, it is very difficult to believe that this is a possibility, but it is. When I throw a stone out upon the still waters of a pond, see the splash, and watch the ripples spread to spread to the shores as the stone sinks into the mud at the bottom of the pond, I am inclined to think that I am observing an event that simply could not run in reverse in this world. At first glance, it seems that it would be absolutely impossible for ripples to begin at the shore and proceed to the middle, or for something as infirm and runny as water to heave a stone from the center of the pond back into my hand. We tend to think of the energy from the stone as becoming so randomly diffused

throughout the water that the direction of this event could never be reversed by reversing the vectors of the atoms involved. But, of course, this is a mistake. In a Newtonian universe, all the energy that is diffused by the thrown stone is diffused in a completely determined, precise, non-random manner. It is random only in the sense that we limited beings do not have the means to keep track of it. So, if all the motions of all the atoms in the system were suddenly reversed, then the stone would indeed be ejected from the water, just as surely as all the billiard balls (even on an uneven table) would return to their original formation if their motions and the motions of all atoms in the system suddenly were reversed. (The fact that this latter would happen even if the table were uneven shows that the force of gravity does not have to be reversed for this reversal of the succession of events to occur. And, the fact that gravity does not have to be reversed to yield a reverse-world seems yet another reason to regard gravity as being a queer and somehow not very respectable kind of force.)

So, if God suddenly reversed the vectors (speed and velocity) of every atom in the Newtonian universe we have imagined, then everything would happen in reverse. Rivers would run uphill, and raindrops would go up to the clouds, even though gravity still operated normally. Stones we had thrown into the water would be ejected, and bubbles we had blown under water would descend from the surface back into our mouths. Billiard balls that had come to rest on the table would begin slowly to move, increase their speed, bounce off the sides, and return to their original formation, knocking the cue back into our hands. The blood and entrails of mice in spring traps would return to the mice, and the springs would return to set position, and the mice then would back away, and so on and on. The light in a room would converge from the surfaces of objects to the filament of an incandescent light bulb, heating it to white hotness, moving electrons through its cord back to the turbines at the dam, pushing water up into the reservoir. People sitting on commodes would not be evacuating their bowels, but would be receiving waste matter into their bodies. If one could watch such a thing, it would be like watching a film of things running in reverse. (Note that our universe likely is very different from the Newtonian billiard ball picture. For one thing, it isn't clear to me how the billiard ball-atom picture explains chemical bonding of atoms needed to make molecules. So, it is only a very primitive thought-experiment.)

Now, suppose that in the beginning, the constituent atoms of our universe were randomly scattered over all space (somewhat as they might be at the heat death of our universe); and, suppose that God wanted to arrange them and give them such an impetus that they would result in a history exactly the reverse of the history of this universe. Of course this would require exquisite planning on the part of the Infinite Intelligence, but in principle it would require no more planning than if He had wanted to arrange the Big Bang in such a way that it would result in a world with exactly our history, running forward. Both our world and its reverse-world are systems in which strict deterministic causation reigns. But, there are several

important differences between a world like ours and its reverse-world.

The first obvious difference is that a universe like ours (running forward, and having wonderfully adapted, complex organisms) requires no planning. As noted earlier, Darwin's theory explains how complex life would evolve almost necessarily, no matter how the atoms were arranged at the moment of the big bang. God could break with His eyes closed, and still get a marvelous universe, albeit an unplanned one very different from ours – different galaxies and evolution of different forms of life in different places. A reverse-world, however necessarily would require absolutely mind-boggling preplanning. Think of the prior coordination required just to make the atoms in a pond converge to eject a single stone! Just having one or two little atoms not lined up quite right at the beginning of a reverse-world would rapidly lead to increasing chaos, so that complex organisms probably never would be formed, and certainly the atoms never would succeed in converging at the big bang position. They would converge in that direction only for a while before returning again in the direction of the heat death of the universe.

Noticing that a deterministic mechanism such as the Newtonian universe can run backwards as well as it can forward, we might begin to wonder which direction our universe is running. Some have thought that people in such a reverse-world would not be able to notice it, since at any instant their brains and thus their memories would be just the same as they would be in our counterpart brains. Of course the "memories" of reverse-world people would be false, being "memories" of a childhood that they have not had and so had not experienced. But, wouldn't it seem to them that they remember their childhood, since their brains would have all the "memory traces" of the brain of one who did have a childhood to remember?

Well, I just don't know what to say. But, if all the reverse-world people's "memories" are false (being of a "future" that they haven't yet had), and if they don't know anything of what has happened so far in their world (none of that is registered in their brains), then I should think that we would have to say that they don't know anything at all. And, if they don't know a single thing, how can we say that they understand or believe anything, or even that anything seems one way or another to them?

As for their experiences, they are incapable of ever seeing anything in the world around them. They cannot see ducks, for example, because light is always leaving their eyes, not entering them. When there is an image of a bird on their retina, it is not caused by the bird that is before their eyes. So, we can no more say that they see anything than that their stomachs are digesting the food that is being "reconstituted" and sent back up their throats, out their mouths, and onto the table. So, what are we to say that they experience? Even we do not experience the events that occur in our brains, having no sense organs there.

But, let us say that the reverse-world people do have "experiences" parallel to ours, only running backwards in time, so to speak. Shall we suppose that they would make any more sense of their experience than we would if everyone began sounding like a recording played in reverse? Shall we suppose that it would make perfect sense to them, since (given that their brains are running in reverse) they are thinking backwards in parallel with their backward experience? But, can thinking in reverse (going from "Eureka!" to confusion) be called solving a problem or figuring out something? Suppose that they did have the solution to a problem. It would be a solution to a problem that they hadn't yet thought about. Suppose they were confused. Should we say they were confused about a question that they hadn't yet asked but had already solved? What can they get right if they do think anything? If they think that bread nourishes their bodies, they are wrong, since (at most) their bodies produce bread. But, would thinking this false thing backwards make them right?

I want to say that this all is nonsense, that we simply don't know what we are talking about when we speak of reverse-world people thinking, knowing, figuring out, and understanding things. Sometimes we are tempted to say that words or sentences are used to express thoughts, as though we could have thoughts without having a language to express them. This lead Wittgenstein to ask, What thought then is expressed by the words, "It is raining"? Shall we also ask, What thought is expressed when these words are spoken of thought backwards? But, we need not wrinkle our collective brow over this. The reverse-worlders have no language. They do not speak. Words never come to their lips. All that ever happens in their world is that waves of air molecules converge toward their mouths, causing their vocal chords to vibrate, and so on. It is not as though they have something sensible to say, if only they could speak. They simply do not speak. Nor do they ever learn anything, nothing ever entering their eyes or ears.

The contentiousness and uncertainty of all this aside, I do not think that it is presumptuous to say that we do know that our world is not a reverse-world. Perhaps the best reason for thinking this (if we need a reason) is that only an Infinite Intelligence could plan and execute a reverse-world, and there is no evidence that such an Infinite Intelligence exists. Reverse-worlds necessarily are highly contrived. The do not evolve naturally, and they are statistically improbable in the extreme, even for completely deterministic Newtonian billiard-ball universes. I suspect as well that reverse-worlds violate the second law of thermodynamics, but I really haven't thought it out. And, our universe does not seem to be as deterministic as Newton thought. There are many causal events (at least at the subatomic level) that seem not to be deterministic in our world. But, as noted above, the tiniest amount of indeterminacy rapidly causes reverse-worlds to degenerate in the direction of increased entropy and chaos, so that we have another reason (if needed) to doubt that ours is a reverse-world. The evolution of complicated life forms in a forward-running universe, on the other hand, can accommodate —

though it does not at all require – a small amount of indeterminacy.

Although the causal mechanism (at the micro-level) is running in reverse in our imagined reverse-world, many of the causal explanations that we use to explain things would not be valid (even in reverse) in a reverse-world. For example, Darwin's theory would have no power to explain the existence of apparent, complicated life forms if they were found in reverse-worlds. An advantageous mutation could not explain the proliferation (can we even speak of proliferation when the number is constantly diminishing?) of a species, since the proliferation of that species would precede the supposedly advantageous mutation. But, neither will causal relations at this level be the reverse of what they are in our world (the "survival" of the species will not be the cause of the mutation).

In fact, almost none of the macro-level causal explanations that we ordinarily give for things will be available (even in reverse) in the reverse-world. The ground's being wet will not be the cause of rain, as it never rains in the reverse-world (water "drops" are driven up to the clouds, points first, by the prearranged, concerted actions of the molecules in the earth and air). The ejection of the stone from the water will be caused by an amazing co-ordination of the micro-parts of the rest of the universe, converging to produce that effect. Since the prime causal movers in this reverse-world are so often the micro-parts (which are too small and too numerous for us to keep track of), even outside observers would be at a loss to see what might happen next in many cases.

In sum, the point of this last (extended) note on Cullers' thesis is simply this: His suggestion that perhaps we have temporally inverted cause and effect, that perhaps we have gotten the causal order of things backwards, does not bear scrutiny. Ignoring the pathetic "arguments" that he offered as Nietzsche's, the suggestion itself is not even faintly sensible. To suggest that we have gotten things backwards in thinking that pins cause pains is to abandon all notion of causality, not to invert it. The reason for this is that there is no explanation how a pain could cause a pin.

Of course it is conceivable that a Newtonian universe could run backwards, but not without being rigged by a perverse God with the mind of a Laplacian computer. And, even if we were part of such a universe, our hearing the report of a gun would could not be the cause of the gun's firing, since in such reverse-worlds guns do not fire and people do not hear (bullets travel into the muzzles of guns, and sound waves travel away from people's ears in reverse-worlds). Indeed, reverse-world people would not be able to make enough sense of anything even to get it backwards. So, again, there seems to be nothing to Culler's suggestion. To say any more would be to prove Austin wrong, that there can indeed be something even more boring than the repetition of things that are not even faintly sensible, namely, belaboring the point that nonsense is nonsense.

What I should like to be able to do in conclusion is to offer a cure or a prophylactic against any further such exercises in nonsense. To this end, I would like to recommend fidelity to a principle that seems to have been abandoned in recent years. The principle is this: Extraordinary claims require extraordinary evidence. I think Hume said it first. For example, if Uri Geller tells us, say, that he has the telekinetic power to bend spoons with his mind, a claim that goes against everything we think we know about the causal machinery of nature, then he needs extraordinary evidence to make his claim plausible and to overcome our well-founded skepticism. Or, to use another example, if people would have us believe the remarkable story that giant reptiles once roamed our planet, then they had better have very good evidence to back up their story. And, of course, they do. They have the bones. So, if Culler would have us believe the astonishing claim that we have gotten the causal order backwards with respect to pins and pains, he should be prepared to give remarkably solid arguments and should provide a sensible account of the causation involved. And, he has done neither.

Unfortunately, adherence to the principle that extraordinary claims should be backed by extraordinary evidence will not stop this flow of nonsense. The reason for this is that many (even supposedly well-educated and intelligent people) simply do not have any sense or feel for what is and is not extraordinary. They have no sense of Wonder. Nothing, it seems, can astonish them. Why is this? Is it because they know so little of science that they can "believe" just anything? Or, do they willfully and deliberately turn their backs on what they know, not finding reality to their taste, wishing things to be possible that are not? Or, does it make them feel superior to think they know more than science knows? (I had a friend who claimed he could levitate by reciting a mantra he had learned from the Maharishi Yogi. When I asked him why he persisted in believing that he could violate the laws of nature by reciting a mantra, he confessed that it made him feel superior to think he could do what all science tells us is impossible.) In the end, I do not know how such idiocy gets traction in our universities. But, I cannot believe that such extraordinary and astonishing claims result from nothing more than an error in computation, a false step in an argument, a simple little mistake.

PS: One piece of post-modernist nonsense that should be laid to rest here is the false claim that Nietzsche would approve of Cullers' deconstruction of causality. Nietzsche was an unabashed and unapologetic determinist. It may well be that the spirochetes caused him to descend into madness, but there is no evidence that he became so feeble-minded as to think that effects could precede their causes. The sole evidence that these people adduce to try to find company in their idiocy is that Nietzsche was aware that sometimes we can mistake the cause for the effect. This is just the correlation-to-cause fallacy, sometimes called cum-hoc as opposed to post-hoc. One of his examples of this was that we might notice that pastors often

are effeminate, and this might lead us to think that being a pastor makes men effeminate. But, remarks Nietzsche, perhaps we have gotten the causal relation reversed. Perhaps pastors are generally effeminate only because effeminate men are more likely to be attracted to that occupation. This kind of fallacy (taking the cause to be the effect) is possible only where we are informed of a correlation between two things and not told which temporally came first. The fallacy of Cum hoc is made possible when we fail to notice that the correlation between A and B might be explained, not by the fact that A causes B, but by the fact that B causes A (or, even by the fact that some third thing C is the cause of both A and B). Committing this fallacy (and noting that it is a fallacy) does not involve the *idiocy* of thinking that the actual effect actually precedes the cause.

So, say we to Culler: Q.E. ~D.